## **Claims**

## What is claimed is:

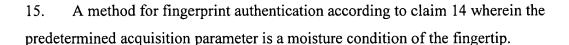
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- 1. A method for fingerprint authentication comprising the steps of:
  - a) acquiring an image of a fingertip;
- b) processing the image to determine a value indicative of a predetermined acquisition parameter thereof;
- c) comparing the image to a stored biometric template, the comparison process based on the determined value; and,
- d) performing one of an authentication and a rejection in dependence upon the comparison.
- 2. A method for fingerprint authentication according to claim 1 wherein the comparison process is selected based on the determined value, the comparison process involving different image processing steps for different determined values.
- 3. A method for fingerprint authentication according to claim 2 wherein the determined value is quantitatively indicative of the predetermined acquisition parameter.
- 4. A method for fingerprint authentication according to claim 3 wherein the predetermined acquisition parameter is selected from a group comprising: a moisture condition of the fingertip; and, an applied pressure of the fingertip.
- 5. A method for fingerprint authentication according to claim 4 wherein the comparison process uses a biometric template selected in dependence upon the determined value, different biometric templates selected for different determined values.
- 6. A method for fingerprint authentication according to claim 1 wherein the comparison process uses a biometric template selected in dependence upon the determined value, different biometric templates selected for different determined values.

- 7. A method for fingerprint authentication according to claim 5 wherein the comparison process includes the steps of:
- c1) selecting an image-processing process in dependence upon the determined value;
- c2) according to the selected image-processing process, processing the image to remove a subset of features contained therein; and,
- c3) comparing the processed image to the selected biometric template, wherein the biometric template is processed according to a same selected image-processing process prior to being selected for comparison.
- 8. A method for fingerprint authentication according to claim 5 wherein the comparison process includes the steps of:
- c1) selecting an image-processing process in dependence upon the determined value;
- c2) according to the selected image-processing process, processing the image to remove a subset of features contained therein;
- c3) according to the selected image-processing process, processing the selected biometric template to remove a subset of features contained therein; and,
  - c4) comparing the processed image to the processed selected biometric template.
- 9. A method for fingerprint authentication according to claim 5 wherein the biometric template is selected from a plurality of biometric templates, each biometric template of the plurality of biometric templates stored in association with a moisture condition of the fingertip.
- 10. A method for fingerprint authentication according to claim 5 wherein the biometric template is selected from a plurality of biometric templates, each biometric template of the plurality of biometric templates stored in association with an applied pressure of the fingertip.
- 11. A method for processing a fingerprint image comprising the steps of:

- a) acquiring an image of a fingertip;
- b) processing the acquired image to determine a value indicative of a predetermined acquisition parameter thereof; and,
- c) selecting an image-processing process in dependence upon the determined value, the image-processing process for removing a subset of features of the acquired image.
- 12. A method for processing a fingerprint image according to claim 11 wherein the predetermined acquisition parameter is selected from a group comprising: a moisture condition of the fingertip; and, an applied pressure of the fingertip.
- 13. A method for fingerprint authentication comprising the steps of:
  - a) acquiring an image of a fingertip;
  - b) processing the acquired image to determine a value indicative of a predetermined acquisition parameter thereof;
- c) processing the acquired image according to a predetermined image-processing process to remove a subset of features from the acquired image;
- d) selecting a biometric template in dependence upon the determined value, the biometric template processed according to the predetermined image-processing process;
  - e) comparing the processed acquired image to the biometric template; and,
- f) performing one of an authentication and a rejection in dependence upon the comparison.
- 14. A method for fingerprint authentication according to claim 13 including the step prior to step a) of:

providing a plurality of biometric template images of a same fingertip, each biometric template image associated with a different predetermined acquisition parameter, wherein each biometric template image is processed according to the predetermined image-processing process.



16. A method for fingerprint authentication according to claim 15 wherein the step of providing a plurality of biometric template images of a same fingertip includes the step of repeating for each predetermined moisture condition the steps of:

conditioning the fingertip to be in the predetermined moisture condition; placing the conditioned fingertip onto a sensing surface; and, capturing an image of the conditioned fingertip.

- 17. A method for fingerprint authentication according to claim 14 wherein the predetermined acquisition parameter is an applied pressure of the fingertip.
- 18. A method for fingerprint authentication according to claim 17 wherein the step of providing a plurality of biometric template images of a same fingertip includes the step of repeating for each predetermined applied pressure the steps of:

placing the fingertip onto a sensing surface using the predetermined applied pressure; and,

capturing an image of the fingertip.

- 19. A system for fingerprint authentication comprising:
  - a sensing area for capturing an image of a fingertip presented thereto;
  - a memory storage area for storing captured images therein; and,
- a processor for executing code thereon to process the captured image to determine a value indicative of an acquisition parameter thereof, and to compare the captured image to a template image according to an image-processing process selected in dependence upon the determined value.
- 20. A system for fingerprint authentication according to claim 19 comprising a fingertip-conditioning portion for providing a predetermined fingertip condition to a fingertip placed into contact therewith.